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RADIOLOGICAL SAFETY IN ATOMIC WARFARE*

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RADIOLOGICAL SAFETY has become probably the most compelling challenge in the modern world and is of deadly concern to every living being. It is a fearful responsibility and to medical men in particular. It is the onerous and thoroughly unwelcome price tag attached not only to the atomic bomb but to the peaceful utilization of radioactive isotopes in research and chemical therapy. It has manifold and difficult applications and moreover, it involves a field heretofore familiar only to a handful of scientists and radiologists. Most of us have had scarcely a nodding acquaintanceship with these problems and now suddenly we are all confronted with the necessity of acquiring at least an elementary knowledge of them.

It would be idle to think of dealing comprehensively with this subject in a single lecture but it is hoped that the elements of the problems can be presented so as to clarify the situation to some degree.

The first thing in logical order is to outline the nature of the peril; and this relates to the phenomena of ionization which forms the basis of radiation effects on living tissue. Ionization refers to the formation of ion pairs by dislodgement of orbital electrons. These bear negative charges and the atom remainders, positive. Re-combinations occur rapidly but even so, that brief period of less than a second is enough to produce important physico-chemical changes.

At this level radiological safety can do very little as regards resistance on the part of the organism. Various drugs and preparations will not prevent ionization in tissue. Therefore, at this basic level the concern of radiological safety must be directed toward the prevention of such radiation from reaching us in dangerous quantities. To that end we have the familiar protective lead and concrete barriers, provide permissible dosage levels, and go in for all sorts of more or less elaborate monitoring by instruments, depending on circumstances, and have developed in large plants what is called Health Physics division. Photodosimetry is also employed extensively.

Next in order is the pathological and clinical nature of ionizing radiation effects, and consideration of what can be done here to minimize harm. Fundamentally ionization alters important chemical compounds, tends to inactivate enzymes, disrupts genes, and causes abnormalities in the chromosomes and so must be regarded as a general irritant equivalent in many ways to a general photoplasmic poison. The histopathological picture is not specific in detail. We see such things as pyknosis, vacuolization, various chromatic changes, hyalinization of connective tissues, atrophy and necrosis.

The effects of such changes are naturally injurious and will result in the death of the cell if the dosage is sufficient. There is great difference in the susceptibility of cells and elaborate sensitivity scales available. However, a few fundamental principles will clarify the matter considerably. First: In common with other injurious agents radiation has less effect on inactive or inert cells and those in resting state such as spores. Growing cells are most vulnerable when about to undergo mitosis and in fact there is a tendency for cells previously injured to survive until that time, whereupon death is apt to occur. There are evidently factors of increased strain and demand on the cells at that time and also the possibility of non-viable daughter cells. With this part in mind we can realize that not only are the gonadal cells especially vulnerable but all cells which

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have reproductive functions. This means primitive blood cells and germinal layers of skin and mucous membranes.

Secondary Effects

In dealing with a complex organism there are extensive secondary effects and doses much less than needed to kill and many types of individual cells will produce death. This is because of a number of factors which derange the mechanisms essential to life:

(1) A circulating heparin-like substance which, combined with damaged capillaries and lack of platelets produces hemorrhages.

(2) Toxic substances from injured cells or possibly absorbed from damaged gastro-intestinal tract.

(3) Agranulocytosis and secondary infections.

(4) Anemia.

(5) Thrombocytopenia.

(6) Ineffective repair.

In dealing with this category of effects, Radiological Safety is once more concerned largely with prevention. Specific therapy is not far advanced and although amelioration from substances such as desoxycorticosterone is to be expected, still on a large scale, benefits are not likely to be very substantial. It might be noted here that a high basal metabolic rate is associated with lessened resistance to the ill effects of radiation and vice versa. This may have some therapeutic implications in the future.

We come then to the general conclusion that radiological safety, like industrial hygiene, is primarily concerned with prevention rather than cure. However, this concept needs to be modified by the fact that we must also plan on dealing with atomic disasters and also with what we call calculated risk i. e., risks which may have to be taken because of emergency or military necessity. In these cases exposure to extreme degrees may be involved and we must see what we can do about it.

Dangers of External Radiation

As a preliminary let us now look into the matter of radiations with which we are concerned. These comprise almost exclusively alpha, and beta particles, gamma rays and neutrons and may constitute either internal or external hazard. In the case of the bomb, and various high energy installations the peril is from external radiation, that is, the various radiations are shot at us from an external source. In the employment of radioactive substances, however, peril may also arise due to possibility of absorption of such substance into the body either by ingestion, inhalation or chance inoculation. Notable in this regard are Ra, Pu, U and Sr 90, Y, Cs, Ce.

Alpha particles are of enormous energy and produce dense columnar ionization in tissue. They are He nuclei with a double positive charge. They penetrate very poorly and most of them are stopped by as little as 0.06 mm Al or even a piece of paper. Thus they have practically no standing as an external hazard. However, alpha emitters such as Ra and Pu can readily cause death if absorbed. They seek bone and lodge near the primitive blood cells so that even though they only penetrate some 30 to 40 microns, they will seriously injure the cells within range so to produce anemia and granulocytopenia. In addition, the chronic irritation may produce sarcoma.

Beta particles are negatively charged electrons and have much greater range but less ionizing power than alpha particles. The mass is also much less. They can penetrate skin and damage its germinal layers and so cause harm directly when emanating from external sources. However, once more, they are of greatest importance as internal hazards from beta emitting unstable isotopes following absorption.

Gamma rays are photons of high energy identical in essential nature with x-rays. They have great range and penetrating power and so despite feeble ionizing power as compared to alpha and beta rays they are of utmost importance as an external hazard, and were the cause of most radiation deaths in the Japanese bombings. It is probable that 15 to 20% of the deaths in Hiroshima and Nagasaki were due to gamma rays and it is also certain that virtually all of those killed within a half mile radius of the detonation point by blast and heat, would have died of radiation effects had they survived their other injuries.

Neutrons are extremely potent biologically even though ionization is produced indirectly. Range is sufficiently limited in the case of the atomic bomb, to fall within the lethal zone for the blast and heat but neutrons are important as hazards about cyclotrons and uranium piles as some people are learning the "hard way" now. Theoretically they can be important in bombings where shelters within a 700 yard radius may prevent blast and heat deaths. Neutrons are able to penetrate many substances such as lead quite readily though they are stopped by hydrogenous materials. Thus water often forms part of the barriers against neutrons. Boron and cadmium also soak up neutrons and can play a part in protection.

The Question of Dosages

Let us now look into dosages involved. The unit of radiation in general use is the "roentgen" or simply "r". It is the amount of radiation which will produce 1 esu of charge in 1 cc of air under standard conditions. This means little except perhaps to

physicists. Clinically, about 1000 r of gamma radiation will produce erythema. 600 r of 200 kv X-radiation, 350 r of 100 kv radiation and 100 r of so-called grenz rays from 10 kv generators will also produce erythema. This seems complex and confusing but follows naturally from variations in wave length and penetrating power. The short gamma rays penetrate to much greater extent than the others and less of them are stopped by the skin; and in this regard we must keep in mind the fact that the intercepted rays are those which produce effects. The long waves from low voltage generators are absorbed in the skin to a great extent and so are more effective in causing skin damage. On the other hand the more penetrating rays are more apt to cause deep damage. Thus in radiological safety we are concerned not only with dosage in r units but the type of radiation. The r unit was originally designed for dealing with x-ray and gamma ray. The other rays produce ionizing effects in different manner and the term rep or roentgen equivalent physical is applied in case of alpha and beta particles and neutrons. Another term rem or roentgen equivalent man is employed to designate equivalent biological effects.

In terms of radiation illness and lethal effects it appears that beginning with 50 to 100 r we are pretty sure to encounter definite symptoms and some incapacity; with about 200 r in a single dose we are apt to have severe radiation illness and a few fatalities. When we reach the 600-700 r level death is almost certain.

Permissible dosage levels are now put at 0.1 per day and that appears safe for limited periods. However, there is doubt as to the total cumulative dosage over long periods which may be absorbed with impunity. Some have mentioned a 1000 r for a lifetime dosage limit for men and 100 for women. Later 500 r has been suggested as an over-all maximum. However, it appears that we must have special regard for cumulative genetic effects which are capable of increasing mutations to an undesirable extent. These considerations appear to indicate that 50 to 100 r may be the desirable upper limit during reproductive years.

General Factors

In the matter of general factors we must have regard for lowered blood counts, skin damage, increased rate of aging, and increased incidence of leukemia. There is no time for an extended consideration but we should note that regardless of so-called tolerance figures our aim should be to keep exposure levels as low as possible. And as a matter of fact, there will probably be a reduction of the permissible dosage to 0.3 r per week.

In regard to internal hazards, extremely minute quantities of the long lived isotopes are dangerous and it is held that the life time limit for Ra and Pu absorbed and fixed in the body should be certainly less than 1 microgram (1.0 mg) and probably not over 0.1 that amount. Thus exceeding care becomes a requisite. Fortunately Pu is not really absorbed from the gastro-intestinal tract.

In the case of neutrons the permissible dosage is placed at one-fifth that for gamma and this is still probably a high rather than low.

Coping with Atomic Disaster

General Relief Measures and Radiological Safety becomes of intense concern in the matter of plans for dealing with an atomic disaster and it is worth while to mention a few general principles remembering that up to a hundred thousand or more casualties may occur from a single bomb. They are as follows:

1. Establishment of facilities outside probable target areas. This involves hospital bed space, storage of equipment and supplies, and plans to activate. Of special importance to civilian groups are plans for emergency expansion of suburban hospital facilities, utilization of schools, armories, warehouses, and various suitable buildings for hospital overflow.

2. Allocation of responsibilities for relief as regards local areas and personnel, and also supporting areas. Close liaison between various groups so that each group knows who is to do what and that there will be no pell mell rush that will hamper and disorganize relief measures.

3. Rigid control of traffic and establishment of emergency police measures.

4. Provision for establishment of decontamination centers if necessary and minimizing the spread of contamination.

5. Sorting of casualties from standpoint of probable amount of radiation received and with regard to any radioactive contamination. Also provision to keep track of people apt to become victims of delayed radiation illness.

6. Provisions of monitoring instruments and training of personnel for their use; also provision for photodosimetry.

7. Provisions of supplies and special vehicles. In this regard an instrument equipped jeep, or similar vehicle would have tremendous value. It should contain instruments for the detection of all forms of hazards and also maps or charts of the locality, protective clothing, masks, note books, etc., with the idea in mind of surveying the area and plotting any areas of contamination and determining the degree and type of radiation hazards. There is now in preparation an "emergency medical tag" which contains an appropriate space for notation as to radiation data including the location from which the casualty came. It is felt that this infor-

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mation together with the survey data would give at least a rough estimate of the degree of radiation to which the casualty had been exposed.

8. Plans for dealing with contaminated water supply. Water supply may prove to be a difficult problem. Except in those cities having artesian or underground sources, some contamination of the source is almost sure to occur, either direct, or induced by a neutron flux. This might be trifling but could be severe and fraught with great decontamination difficulties and calling for special filtration. This, of course, is an engineering problem but one which the medical officer may well keep in mind, from the standpoint of an ample supply of water for intravenous use, medications and dietetic purposes. Ample underground storage facilities are to be considered earnestly in this regard.

9. Morale problems. Plans for minimizing psychologic shock and handling of panic. It is probable that the mere knowledge that comprehensive arrangements have been made to care for the situation will be very helpful; also provision of underground shelters would be reassuring.

The Role of The Hospital

Of particular concern is the application of radiological safety to hospitals in the event of an atomic disaster. The problem here has a number of aspects and involves monitoring, possible evacuation, sorting and handling and treatment of casualties, decontamination and provision of proper supplies.

The first consideration is of course whether or not the hospital can function at all. This will depend on physical damage and radioactive contamination. The foremost is obvious; the second however, involves provisions for monitoring. Thus in planning, one must figure first on provisions for monitoring and also for possible evacuation if contamination is beyond tolerance in all or part of the hospital. Due regard must also be had for the degree of contamination and probable exposure. It would be idle, for instance, to evacuate large numbers of patients already doomed as by exposure to an intensly radioactive deluge from an underwater burst.

Assuming that a hospital is able to carry on its function of receiving casualties we have the following considerations:

Receiving sections and decontamination facilities. It is necessary both to segregate patients and prevent wholesale contamination of the entire hospital. Casualties, if present plans go thru, should have tags indicating something as to probable or possible degree of exposure and it should be possible to form an idea in most cases as to the probability and degree of radiation illness to be expected. This will have important bearing on what cases can be dismissed, those who will probably become very ill and those who are virtually sure to die. It will also have an important bearing on the treatment of other injuries. Thus, open operations on cases likely to show agranulocytosis are to be avoided and again care for people who have received fatal amounts will probably have to be limited to a minimum of alleviative measures so that nursing care and precious supplies can be conserved to deal with cases where life may be saved.

Segregation also involves the matter of possible contamination and calls for monitoring of casualties as well as provision for decontamination. The implications are obvious.

Supplies

According to our present knowledge of radiation sickness, there is no indication for stockpiling of large quantities of specific drugs. Research on the use of corticosterone and also several substances such as protamine and toluidine blue which act as antagonists to the heparin like anticoagulant shows promise but final evaluation and possibility of practical utilization remain to be worked out.

Since there is no accepted specific treatment, supportive treatment is very important. This will call for large quantities of intravenous fluids and blood derivatives, and, of probable chief importance, facilities for drawing and administering whole blood. The anti-biotics, particularly Pennicilin and Strep-

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Captain Charles F. Behrens, MC, USN, medical officer in command of the Naval Research Institute at Bethesda, Md., addressing the mid-winter meeting of the Rhode Island Medical Society at the Naval Air Station, Quonset, R. I.

(Official U. S. Navy Photograph)

SYMPATHECTOMY—ITS ROLE IN THE TREATMENT OF VASCULAR DISEASE

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SYMPATHECTOMY may be defined as an operation on the sympathetic nervous system, wherein, all or part of that system of nerves may be removed.

It is well, at this time, to orient our thinking in regards to this system of nerves, and place it in its due relation to other nervous systems of the body. Roughly speaking the nervous system may be divided into two parts, the voluntary and the involuntary. The voluntary nervous system is under the control of the higher centers in the cerebral cortex, and is responsive to the directives of the mind. We can cause ourselves to arise and walk, run and jump. All such activities are brought about by the voluntary nervous system. The involuntary nervous system is not controlled by the will, and for this reason is frequently called the autonomic nervous system. It is divided into two parts, the sympathetic and the parasympathetic. This system of nerves innervates nonstriated muscles and glands which are not under the control of the voluntary nervous system of the cerebral cortex. These compose the circulatory system and digestive glands, the heart and blood vessels as well as tubular viscera, such as, the esophagus, trachea, bronchi and the gastro-intestinal and genito-urinary tracts.

The sympathetic ganglionated chains are found on either side of the vertebral column anteriorly from the base of the skull to the ganglion impar at the coccyx. They are connected with the spinal nerves by rami communicantes, numbering twenty-four ganglia in each chain, one for each spinal nerve except the fifth lumbar and for five of the cervical nerves. In the neck there are only three or four ganglia for the eight nerves.

The parasympathetic or cranial sacral division of the autonomic nervous system receives most of its fibers from the vagus nerve, but others are also present in the oculomotor facial, and glossopharyngeal nerves. The sacral parasympathetic nerves leave the spinal cord with the second, third and fourth sacral nerves in the corda equina.

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In this discussion of sympathectomy, we shall concern ourselves with the thoraco-lumbar division of the autonomic nervous system or those fibers springing from thoracic nerves one to twelve and lumbar nerves one to three inclusive. The individual ganglia are pea sized fibrous bodies connected together by the so-called sympathetic trunk, a definite structure slightly larger than the lead in an ordinary lead pencil which can be easily felt as well as seen. Branches from the spinal nerves connect with these ganglia and branches leave the ganglia to supply the various viscera of the body.

The chief functions of the sympathetic nervous system are three in number: (1) vasoconstriction, (2) sudomotor activity and (3) pilomotor activity. The greatest of these is vasoconstriction, and it is by altering this mechanism that good results are frequently obtained in vascular disease. When, for example, the right lumbar sympathetic trunk, including the first, second and third ganglia, is removed, the right lower extremity from the junction of the lower and middle third of the thigh to the toes will be in a constant state of vasodilation. The extremity over this area will not be able to sweat and the muscles which control the hair will be without function. Such an operation will greatly increase the volume of circulating blood in the extremity, and by relaxing vasoconstriction, open up collateral vessels which may have previously been quite without function. The absence of sweating and pilomotor activity are less important effects, and merely indicate the thoroughness and extent of the sympathetic interruption.

The problem of vascular disease is probably one of the greatest that faces the medical profession today. Tuberculosis, cancer, infantile paralysis, rheumatic heart disease are all more highly publicized and better understood by the general public, each putting on national campaigns for the raising of funds in the hope of eradicating the disease in question, but little or nothing is heard of vascular disease, the greatest culprit of them all. In the year 1947 there were 3,270 deaths recorded in the city of Providence. Heart disease led the list with 1,143, cancer coming second with 486. All forms of pneumonia 106, kidney disease 179, but when the list is broken down into cardio-vascular disease per se, it can be seen that 1,269 died of this disease alone.

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VASCULAR DISEASE DEATHS

Providence 1947

	Deaths
Coronary Disease	440
Cerebral Accidents	255
Art. Scl. Heart Disease	212
Hypertension	184
Myocarditis	178
Total	1269

Figure No. 1

Figure No. 1 shows a breakdown of deaths from vascular disease in the city of Providence in the year 1947. Coronary artery disease leads the list with 440 deaths. Second is arteriosclerotic heart disease, third cerebral hemorrhage and fourth, hypertensive cardiovascular disease. In my opinion, there is greater hope for increasing the longevity of the race, if such is desirable, by research work aimed at discovering the cause and prevention of vascular disease than there is in any other field that might be explored.

The operation of sympathectomy, of course, is not a curative procedure, but by abolishing vasospasm and encouraging the development of collateral circulation, it goes a long way toward alleviating suffering from vascular disease of many types and is a definite tool in our therapeutic armamentaria which needs to be more widely used and better understood.

A word about the operative procedures on the sympathetic nervous system as they are related to vascular disease: 1. lumbar sympathectomy — This operation is directed at the abolition of vasospasm in the lower extremity on the side chosen. It will do away with vasoconstriction, sudomotor and pilomotor activity in the lower extremity, roughly, from the knee down. The sympathetic trunk is removed from L-1 to L-3 inclusive, at least from L-2 to L-3 inclusive, and the desired effect is immediately obtained. The operation itself consumes approximately 30 to 60 minutes in time. It is non-shocking and without undesirable side effects, except possibly in the male when it is done bilaterally, there may or may not be some alteration of the sexual function. 2. dorsal sympathectomy — This operation is done to denervate the upper extremity and consists of severing the dorsal sympathetic trunk below D-3 disconnecting it from spinal nerves 3 and 2 and turning the trunk up into the wound suturing it into some of the muscle. The second and third spinal nerves are resected intraspinally at the same time. The operation consumes approximately two hours in time, is non-shocking, carries with it no mortality and the patient is up and around the next day. On the side selected the head, shoulder, arm and part of the upper thorax, anteriorly and posteriorly is completely denervated, dry and warm, without sweating or pilomotor activity. 3. Sympathectomies for hypertension — There are several types of operations done on the sympathetic nervous system to alter the course of hypertensive vascular disease. Probably the best known and most satisfactory is the operation devised by Smithwick where the dorsolumbar sympathetic chain is removed from T-8 or T-9 down through L-2 inclusive, removing at the same time the greater, lesser and least splanchnic nerves. There seems to be no general indication to do a higher type of operation than this unless it is thought desirable to denervate the heart at the same time. There are other operations, including a total sympathectomy, done intrathoracically, and high sympathectomies as reported by Poppen and Grimson, but it has not been shown that they offer the patient anything more unless denervation of the heart is thought to be indicated and then a much higher procedure is necessary than most of these include. 4. Denervation of the heart — This operation is being more widely done as it has become better understood. It is generally felt that the sympathetic trunk should be removed from above D-2 to below D-4 inclusive. This operation takes approximately two hours in time and is essentially the same sort of a procedure as is done to denervate the upper extremity except in this case the trunk is removed and not turned up into the wound.

I should now like to say something about my own experience with sympathectomy in the treatment of vascular disease. Since 1942, 220 operations have been performed upon the sympathetic nervous system on 151 patients. Lumbar sympathectomies lead the list with 132 procedures on 102 patients. 36 patients underwent 68 procedures for hypertension undergoing thoracolumbar sympathectomy and splanchnicectomy. Thirteen patients underwent twenty operations for denervation of the upper extremity. (Figure No. 2)

SYMPATHECTOMY

	Operations	*Patients*
Lumbar Sympathectomies	132	102
Dorsal Sympathectomies	20	13
Splanchnicectomies	68	36
Total	220	151

Figure No. 2

The chief types of vascular disease for which sympathectomy was done as a therapeutic measure included arteriosclerosis obliterans, vasospasm, hypertensive vascular disease, varicose ulcers, Raynaud's syndrome, thrombophlebitis and postthrombotic syndrome. Buerger's disease, arterial embolic occlusion, and causalgia. Some of these patients had more than one of these vascular dis-

eases which accounts for the discrepancy in the number of cases reported. (Figure 3)

SYMPATHECTOMY

Types of Associated Vascular Disease

	Cases	*Percent*
Arteriosclerosis	43	28
Vasospasm	37	24.5
Hypertensive Vascular Disease	36	23.5
Varicose Ulcers	20	13.2
Raynaud's Type	17	11
Thrombophlebitis and Post-thrombophlebitic Syndrome	8	5.2
Buerger's Disease	7	4.6
Associated Diabetes	6	3.97
Art. Embolic Occlusion	2	1.32
Causalgia	2	1.32

Figure No. 3

ARTERIOSCLEROSIS OBLITERANS — Forty-three patients manifested symptoms of arterioscleriosis representing twenty-eight percent of the entire group. In general, arteriosclerotic occlusion of the major blood vessels of an extremity is usually seen in the vessels of the lower extremity. The onset may be abrupt or gradual. If abrupt, the symptoms are those which are associated with any sudden arterial occlusion in any part of the body. There is sudden severe pain which may or may not be relieved by rest, depending on the location of the occlusion. Activity is completely or almost completely limited. Function of the part is therefore greatly impaired. In the lower extremity intermittent claudication is one of the most prominent symptoms, and this is relieved by rest. If vasospasm is present, it is accentuated. Examination of such an extremity with the patient in the dorsal recumbent position usually reveals it to be pale; the foot is cold and if sympathetic activity is active, it is clammy-moist. Arterial pulsations will be reduced or absent below the occluded area. In such patients who are in reasonably good physical condition, a lumbar sympathectomy performed at the optimum time will abolish vasospasm thereby increasing the circulation, increasing the skin temperature, greatly easing or entirely obliterating the pain, increasing the function of the part and aiding in the development of the collateral circulation. Where a patient is in too poor condition to undergo such a nonshocking procedure as a lumbar sympathectomy, then paravertebral lombar injections may be done. These should be repeated four or five times daily and may help in desperate cases. In general, however, their effect is too transitory for this condition, and they are not recommended. Together with this treatment, of course, is added the usual therapy of anti-coagulant drugs, papaverine, alpha tocopherol, bed rest, sedatives with the head of the bed elevated on low blocks so that the extremity is slightly lower than the body. Heat and moisture are definitely avoided. Intermittent venous occlusion has an occasional part to play preoperatively.

In arteriosclerosis obliterans, which comes on gradually, we are dealing with the more severe type of the disease, and here the prognosis is not as good as when the onset of the occlusion is abrupt. In the gradual type both lower extremities are usually affected to about the same degree. Frequently the femoral arteries are not even palpable, or found to be pulsating. The limbs are very cold, often dry. The skin tends to be atrophic. There is reddish cyanotic congestion of the toes with symptoms of intermittent claudication appearing on walking any distance. This has gradually increased over a period of many months. In known cases where evidence of sympathetic activity still exists, as witness the presence of sweating or the least bit of moisture on the toes or legs, then a lumbar sympathectomy is advised without hesitation as all such patients receive some relief, and the eventual loss of their extremity is postponed for years. When no evidence of sympathetic activity is present, then one must rely on one's judgement and experience, taking into account the age and general condition of the patient, for frequently in such cases fifty percent of them may be helped by sympathectomy. Unfortunately our tests for the demonstration of sympathetic activity are very gross, and will not pick up the borderline type. The finest and most reliable test that we have is the presence or least suggestion of moisture which can be readily detected by the examining fingers. All associated disease conditions should be treated in these patients together with the vascular deficiency.

VASOSPASM — This is not a disease per se, but a physiological state which may be found to be present in excess in many of these vascular cases. Twenty-four percent of these patients exhibited sufficient vasospasm to warrant its notation in the record, and its addition to the diagnosis.

HYPERTENSIVE VASCULAR DISEASE — Thirty-six patients were operated upon for hypertensive vascular disease. One of these patients died in the hospital on the twentieth postoperative day of cerebral thrombosis, this case representing the only death in the entire series of sympathectomies, including all types. It is the general consensus of opinion today that in properly selected cases of hypertension the operation of sympathectomy offers more for the patient than any other treatment we now have at our disposal. The younger the patient and the earlier the operation is done, the better the result. The older the patient and the more permanent organic damage that has been brought about by the hypertension, and related diseases, the less satisfactory the result. Even in the worse cases, however, symptoms of headache, dizziness, palpitation, nervousness (the chief ones

that usually cause the hypertensive case to seek medical help) are almost uniformly completely obliterated or diminished. Suffice is to say that patients with hypertensive vascular disease should be hospitalized and carefully evaluated to determine whether or not sympathectomy is indicated in their particular case.

VARICOSE ULCERS — Twenty cases or thirteen percent of this group presented varicose ulcers along with their other vascular disease. This does not mean that sympathectomy is advised for the treatment of varicose ulcers per se, but where they are found to be of long standing, and there is associated deep vein insufficiency with evidence of vasospasm, usually marked, and local deficiency in the circulation due to fibrosis and scarring, then sympathectomy is used in addition to such other procedures as superficial femoral ligation, high saphenous ligation, adequate supportive therapy to the leg, elevation, wet dressing, bed rest, et cetera. Here again it is a matter of judgement, but no case brings more satisfaction than individuals who have suffered from painful, severe ulcers of the extremities for ten, fifteen or twenty years, undergoing all kinds of treatment without success only to find that by using some of our more recent adjuncts, including sympathectomy, a good result pertains and persists. Varicose ulcers are the result of vascular insufficiency, and this insufficiency may be simple or complicated. It is only by understanding the particular pathological physiology of the extremity in question that adequate therapy may be instituted. When varicose ulcers refuse to heal and stay healed after using the most simple measures, then the utilization of sympathectomy together with more radical vein operations must be considered.

RAYNAUD'S TYPE — Seventeen patients were operated upon under this category. In general, it means that these patients have cold feet and cold hands, that they are of the nervous neurasthenic type, perspiring easily, showing marked evidence of vasospasm and frequently having symptoms of pain aggravated by cold. Color changes occur in the fingers and toes, particularly in cold weather. There is numbness, pins and needles sensations, pain and restriction of motion. Many people have this diathesis without symptoms, and of course, are in no need of treatment. A simple injury, however, is never well tolerated by this type, and may be just enough to set off their disease into a recognizable state. Causalgia is one of the best examples of this. Rayanud's disease in its early stages is chiefly manifested by vasospasm, and may be completely relieved by sympathectomy. No type of patient is more grateful.

THROMBOPHLEBITIS AND POST-THROMBOPHLEBITIC SYNDROME — It is my feeling that patients with hypersympathetic activity who suffer an attack of thrombophletitis receive an injury to their vascular system which sets off the trigger of their vasospastic disease which in turn renders the phlebitic syndrome more chronic in nature. They are the ones whose legs continue to swell, who develop varicose veins and ulcers. Their extremities are cold and clammy, practically bloodless because of the excessive vasospasm which is present. No group is more satisfactorily helped than this one, and their number is legion. Here again sympathectomy is not necessarily used alone for, if indicated, superficial femoral and high saphenous ligations are likewise done and adequate supportive therapy may be necessary for some time.

BUERGER'S DISEASE — Seven patients were operated upon for this condition. It is the general consensus of good surgical opinion today that with the diagnosis of Buerger's disease, a sympathectomy should be performed. It does not cure the disease, but it greatly retards the process, improving the collateral circulation and usually preserving an extremity for an additional five or ten years, possibly indefinitely. It might be noted here that a type of phlebitis known as superficial migratory phlebitis, a phlebitis which occurs in small segments and jumps around from place to place in an extremity, is almost synonymous with Buerger's disease.

DIABETES — Six patients in this group had diabetes. I believe this figure is too low, but diabetes is a factor encountered and usually makes the prognosis more serious.

EMBOLIC OCCLUSION — Two patients were operated upon following arterial embolic occlusion that was not treated by embolectomy. In the presence of sympathetic activity, such a procedure is almost life saving as far as the limb is concerned. Timing of the operation is important as the blood pressure requirements of the leg must be considered in order not to further jeopardize it.

CAUSALGIA — Two patients were operated upon under a diagnosis of causalgia. 'Causus' in Greek means burning and 'algia' pain. Hence, the word causalgia means burning pain. These patients are always of the Raynaud type, having hypersympathetic activity. They have undergone some form of injury, usually physical, and as a result develop an incapacitating, burning pain of an extremity which is unresponsive to all forms of therapy. The skin is shiny and glossy. Beads of sweat may stand out on it. There are color changes present. The hue is usually a purplish red. Just drawing a feather across such skin produces severe agonizing pain. The jarring of a door or dropping of a book sets these patients off into paroxysms. They frequently

require Morphine or sedatives in large doses to give them any comfort. They shield and protect their extremities as one would care for the most fragile glass. Here sympathetic block is diagnostic and if not curative, sympathectomy is indicated. The results are excellent.

This discourse into an experience with sympathectomy as it has been used in various vascular conditions is, of course, superficial and probably spread over too wide a sphere. It does, however, indicate the importance of this means of therapy in the treatment of one of the morst serious group of diseases that now confronts the medical profession.

RADIOLOGICAL SAFETY IN ATOMIC WARFARE

concluded from page 198

tomycin, will be very important in the prevention of secondary infection. Oral medication is preferable to parenteral, because of the danger of introducing infection with the hypodermic needle. Where injection is necessary due to vomiting or other causes, the massive doses in oily solutions are preferable. The use of the Sulfonamide drugs will probably be contra-indicated in most cases because of their depressing effects on the already damaged blood forming elements.

Food and drug supplies in the area of an atomic explosion may be radioactive either due to induced radiation induced by neutron bombardment or to contamination. This indicates that consideration be given the storage of non-perishable food and drug supplies in outlying areas, conceivably in underground storage shelters and monitoring of exposed materials before use. In addition to food, drugs, antibiotics, surgical supplies, splints, etc., it will be necessary to stock special clothing such as coveralls, shoes, socks, hard hats and gloves. Masks, to protect the wearer against the inhalation of radioactive dusts will be essential. Detecting instruments will be required to screen the casualties and insure against the introduction of contamination into the hospital and emergency station, or to detect such contamination if it is already present and allow avoidance of the dangerous areas by personnel.

Navy Programs

In closing I would like to note briefly what has been done by the Navy Medical Department so far.

1. Problems of Operation Crossroads and its aftermath dealt with, in itself a large order. Also problems of Operation Sandstone.

2. Atomic Defense Division set up.

3. Indoctrination courses and lectures given.

4. Cooperation and mutual assistance arranged for with the Army in training programs; same in regard to Navy Line personnel. (6 and 2 weeks basic indoctrination courses at Treasure Island and Edgewood).

5. Arrangements for high level training in cooperation with the Personnel Division.

6. Radiologic safety standards established and regulations distributed. In addition, the "Introduction to Radiological Safety" was prepared and distributed last year. A second edition, enlarged and revised, is now being distributed under title of "Manual of Radiological Safety". A third revision is in preparation.

7. Research in radiation biology at NMRI and the Naval Radiological Defense Laboratory at San Francisco. Support to ONR sponsored research.

8. Preparation of revised casualty tags and special personnel forms to deal with radiologic hazards—these for consideration by joint committee.

9. Maintenance of close liaison with the Atomic Energy Commission, Army, National Research Council, and Armed Forces Special Weapons Project.

10. Promulgation of physical examination standards and criteria.

11. Establishment of central files to maintain records of radiologic exposure of personnel.

12. Training of x-ray technicians in photodosimetry arranged for and now in effect. Extension of Photodosimetry to include x-ray Departments of Naval Hospitals, laboratories and industrial establishments being accomplished.

13. Steps taken for extensive procurement of monitoring instruments and pocket dosimeters.

14. Teaching material and films being continually assembled. District medical officers supplied with such in recent months.

15. Last but not least, we are making provisions for the correct and safe use of radioactive isotopes in therapy and research.

This will indicate to you that the Navy Medical Department is alert to the radiation situation and doing all possible to meet it.

KEEP POLITICS OUT OF MEDICINE!

(The following comments are abstracted from an address by Clem Whitaker, director of the National Education Campaign of the American Medical Association, before a meeting sponsored by the Council of the New England State Medical Societies, at Boston, March 27, 1949.)

AT THE OUTSET, I want to refer briefly to a development which is of particular interest to the delegates from Rhode Island and to all of you as representatives of the New England States, but which may bring Nation-wide repercussions.

Senator McGrath of Rhode Island was quoted a few days ago as charging that the State Medical Societies and the American Medical Association constitute "a medical dictatorship". Senator McGrath also repeated the now threadbare and wholly untruthful charge that the American Medical Association plans to use the money obtained from the AMA $25 assessment as a "slush fund" for high-pressure lobbying in Washington. That, of course, is part of the propaganda line of the socializers in Washington, who hope by slurring attacks on medicine to terrorize doctors into non-resistance. We will deal with that trumped-up accusation more fully later.

The most amazing aspect of Senator McGrath's intemperate blast, however, was *not what he said, but how he said it*. He spoke, not as the Senator from Rhode Island, but as the Chairman of the Democratic Party, and his statement was released under the auspices of the Democratic National Committee.

This is significant, because you all know how bitterly the advocates of government medicine deny that medical practice will be subject to political pressure and political interference if a system of compulsory health insurance is enacted. Actually, *the political pressure has begun before the bill even has been heard in Committee*—and Senator McGrath cannot escape responsibility for injecting partisan politics into this vital health issue.

Now let me report to you a very interesting and reassuring development in connection with Senator McGrath's abuse of his political office.

A Democratic National Committeeman Replies

I have received, and am privileged to read to you, a copy of a telegram which has been sent to Senator McGrath today by Dr. R. B. Robins, Democratic National Committeeman for the State of Arkansas.

The telegram is as follows (and I quote):

"Senator J. Howard McGrath, Room 327,
"Senate Office Building, Washington, D. C.

"As Democratic National Committeeman for the State of Arkansas, and as a member of the House of Delegates of the American Medical Association, I wish to register vigorous protest against your misuse of the Democratic National Committee to attack the medical profession.

"According to press association reports, your scurrilous statement of Monday, March 21, attacking State Medical Societies and the American Medical Association as a medical dictatorship, was distributed by the Democratic National Committee and you were quoted as the party's Chairman.

"The medical profession is threatened with a government dictatorship, not a medical dictatorship, as you well know, and your action affords eloquent evidence of why we don't want political medicine in this country. There are thousands of doctors who, like myself, are Democrats in good standing, and who will resent your use of Democratic Party facilities to undermine public confidence in the medical profession.

"If you insist on playing politics with the health needs of the American people, you will bring discredit on both yourself and our party.

(Signed)
"R. B. ROBINS, M.D.
"Democratic National Committeeman
"State of Arkansas."

That is the end of the telegram, but I doubt whether it is the end of the incident. I imagine that the Senator will hear from many other members of his party who refuse to countenance his misuse of his party office. And I hardly think it is necessary to say that he certainly should hear from some of his constituents in Rhode Island.

The Lobby Myth Exploded

Now, just for the record, let's deal specifically and bluntly with that familiar charge of the socializers that the American Medical Association plans to invade Washington with a high-powered lobby and a $3,000,000 "slush fund" in an effort to block passage of compulsory health insurance legislation.

That charge is absolutely false; there is not a word of truth in it — and every doctor who values the good name of medicine should make it his business to see that this smear attack is branded as false in every community in America.

The Washington Office of the A.M.A. is one of the most modest legislative offices maintained by any of the national associations in the Capital — and is staffed my men of unquestioned integrity, who are highly respected in Congress.

Medicine Exercises The Right Of Petition

The A.M.A., in its National Education Campaign, is carrying its case directly to the people of America in a grass roots crusade which we hope, with your help, and the help of tens of thousands of others, will reach every citizen in this country.

One of the greatest rights which we have as a free people is the right of petition — and we intend to exercise that right, not just to protect freedom of practice in medicine, but to protect the health of the Nation.

The people have a right to know that political medicine is bad medicine, that it means inferior medical care, that it means extortionate payroll taxes, that it means invasion of their privacy, that is means destruction of the splendid voluntary health insurance systems which provide good, honest medical care at lower cost than government ever can provide it.

A Jury Of The American People

The American people, not Congress, will decide this issue in the final analysis — and the objective of the National Education Campaign of the American Medical Association is to get the facts to the people. If that is lobbying, it is lobbying in the finest American tradition — and every doctor can be proud of the part he plays in doing the job.

There *is* a lobby in Washington on health insurance — a notorious lobby, but *it is a lobby in favor of political medicine,* not against it. It is composed of thousands of government office-holders and employees in bureaucratic agencies, brazenly using the funds of American taxpayers for propaganda purposes.

The Harness Committee Reports

In 1947, a House subcommittee on Publicity and Propaganda, known as the Harness Committee, investigated this government lobby and reported, in part, as follows: (I quote)

"Your Committee reports to the House that, on the basis of hearings held on May 28 and June 18, 1947, it finds that at least six agencies in the executive branch are using government funds in an improper manner for propaganda activities supporting compulsory health insurance, or what certain witnesses and authors of propaganda refer to as socialized medicine, in the United States." (end of the quotation)

The six agencies accused in that Congressional Committee report of using government funds in propaganda for compulsory health insurance were the Bureau of Research and Statistics of the Social Security Board, the United States Public Health Service, the Children's Bureau, the Office of Education, the United States Employment Service and the Department of Agriculture.

The Federal Propaganda Brigade At Work — And What It Costs!

The Committee also reported that it found expenditures in the executive branch of the government for publicity and propaganda activities, during the preceding year, had totaled $75,000,000— I repeat 75 million dollars — and that 45,000 Federal employees were engaged, full or part time, in such activities.

The A.M.A.'s proposed $3,000,000 fund, when compared to that stupendous government total, looks modest, if not inadequate, and there is no doubt that the advocates of socialized medicine will be prepared to out-spend the medical profession in every phase of activity.

But the doctors of America need not fear the verdict of the American people if they get the facts before them.

Now let's take a look at the broad, underlying policies of this campaign. Let's define the issue!

American medicine is engaged in a life and death struggle for survival as a free institution, but this isn't just a medical issue.

The health of the people is at issue. Patients, as well as their doctors, will walk in government lockstep if compulsory health insurance is adopted — and the quality of medical care will deteriorate here, as it has in every other country where politics has become a factor in medical practice.

The Basic Issue Defined

But the issue goes far beyond the health and physical welfare of the American people.

This is a basic struggle between two warring philosophies of government and economics.

It's a fight between Socialism and individual initiative, or Communism and a free economy. Call it what you will, it's a fight to the death. And the ultimate stake in this fight is despotism or democracy, a Socialist State, or a free America.

The handwriting is on the wall for everyone to read. We only need look at Great Britain — and consider the tragedy of the British people, who once prided themselves on their individual initiative and their great dignity as a free people. Britain, today, unless the tide is turned back, is well on the road to socializing all of its industries and professions — and when the Socialist State is complete, freedom of the individual is gone.

continued on next page

Socialized Medicine — The Opiate Of The Socialist State

There is no escape from that conclusion. Free men can have incentive; free men can fashion their own objectives. But men who are willing to trade their liberty for a spurious promise of security end up with neither.

History has taught us a stern lesson in this regard.

Hitler and Stalin and the Socialist Government of Great Britain all have used the opiate of socialized medicine to deaden the pain of lost liberty and lull the people into non-resistance.

If this Old World contagion of compulsory health insurance is allowed to spread to our New World, it will mark the beginning of the end of free institutions in America. We will have taken one of the final, irreparable steps toward State Socialism — and it will only be a question of time until the railroads, the steel mills, the power industry, the banks and the farming industry are nationalized.

Other professions, of course, will go down quickly, if the great medical profession of this country succumbs to regimentation. In England, already, the agitation has started to socialize the legal profession — and even in our own country, bills have started to appear in some of our State Legislatures to provide the people with government-paid legal services.

The Cycle Of Stateism

The appetites of men with a lust for power over their fellow men are never sated — and no Socialist State ever is satisfied until the cycle of Stateism is complete.

That's the kind of fight we face, ladies and gentlemen, and the medical profession should proudly accept the challenge to lead that fight for their country.

This isn't just a fight against socialized medicine. This is a battle to the death against State Socialism — and wherever we see the socializers making headway, whether it is in medicine or some other profession or business or industry, that should concern us, too.

"It is still our conviction that any compulsory health insurance plan—political medicine—destroys the essential personal relationship between patient and the doctor of his choice and increases Government supervision and control of our private lives and is in full substance and effect—the planned economy of a collectivist nature . . ."—AMERICAN LEGION.

RETROLENTAL FIBROPLASIA

RETROLENTAL FIBROPLASIA, the presence of an opaque membrane behind the lens, was described by T. L. Terry of Boston in 1942 as a cause of blindness among premature infants (American Journal of Ophthalmology, *25*: 203, Feb., 1942). In a recent study covering various American cities, the incidence of the disease in 1301 premature infants weighing less than 1810 grams (4 lbs.) at birth was 7.6 per cent. It is recommended, therefore, that prematures who were below this weight at birth be given a careful ophthalmoscopic examination at the age of six to nine months. Earlier than this the opaque membrane may not be seen except at the extreme periphery of the retina. Ophthalmologists interested in observing the development of the condition may want to see the infants in the early stages to look for dilation, tortuosity and thickening of the retinal vessels, exudate and evidence of separation of the retina.

The etiology of retrolental fibroplasia is unknown. Almost all reported cases have occurred in prematures. Many theories as to causation have been discussed, some relating to the mother's condition during pregnancy, and others relating to nutrition, drug therapy and health of the premature. It is not now believed to be produced by the lights present in incubators.

Treatment at present is not satisfactory. Some of these babies develop glaucoma and other eye conditions, so they should be under ophthalmological supervision.

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OUT-PATIENT SERVICES

Recently the chief of one of the staffs in one of our larger hospitals unburdened his mind to us. The following is given in an attempt to summarize his ideas:

Of recent years the service given in our hospitals has been enormously improved, especially in the hospitals that have a good supply of interns and residents. The treatment of the patient in the ward is far better than it was ten years ago. There are many factors that account for this improvement but of great importance have been the desire of the staff to give these men good training, and the enthusiasm of the younger men themselves.

Unfortunately, this great improvement has not extended in an equal manner to the out-patient departments and accident rooms. Here the work has been done by the younger men with, we believe, almost no supervision by their seniors. Really, the most important work is done in the accident rooms and the out-patient departments. When a patient has reached the wards it is almost certain that his case is an important and difficult one. It is the important and difficult work of the youngster to recognize these cases amongst the flood of the run-of-the-mill stuff.

A matter that has always seemed ridiculous to us is the handling of fractures. In the case of a fracture of a leg, the patient gets into the ward and probably a senior surgeon takes care of him. If he breaks his forearm the best he can hope for is that a resident rather than the inexperienced intern will take care of his break. There are mighty few positions in this world that a man with a limping leg cannot take care of, but if he has a poorly functioning wrist, he is pretty well finished in any of the mechanical positions. Good hands raise men above the brutes. The great proportion of hand injuries are left to the young men.

Dr. William Osler years ago made the point that it might be well worthwhile for the out-patient work to be done by the more experienced physicians. He was undoubtedly thinking that in most diseases the important thing is early recognition. Once the importance of the disease is recognized and the patient sent to the wards, investigation is largely a routine matter.

There is another aspect of out-patient work that should be stressed. Our interns and residents prepare themselves for practice by handling the most spectacular of our diseases. These diseases are often spectacular because they are few in number. It must be a rare young man who starts in practice handling largely this type of case. It is the mature consultant who gets them.

continued on next page

The trainee should see the colds, the coughs, and the indigestions, the aches and pains, that bring people to our waiting rooms. He should learn how to soothe the middle aged patient whose indigestion is probably due to recent overindulgence and yet have a serious eye open to spot the primary anemia or the beginning of cancer.

Although the staffs have made every effort to treat the out-patient well, it is not usually the ideal arrangement of the older and the younger men working side by side and consulting together. The quality of treatment my chief of staff believes does not compare with that which is given when the older men are teaching the younger men and the younger men are trying eagerly to acquire as much knowledge as they can during their relatively short period of training.

It is not often that the young man starting in practice has the opportunity that some of us had in the surgical out-patient department years ago when we worked with Dr. M. P. Mahoney. For twenty-five years he had a large practice and yet continued to take his service each year in the surgical out-patient. Probably a good proportion of the budding physicians who worked under him had as good an understanding as he had of the so-called major problems of surgery but Dr. Mahoney knew innumerable helpful little things. In those days it was rare for the non-Jewish boy baby to be circumcised in the Lying-In Hospital. These operations were the chief operative procedure in the out-patient. Dr. Mahoney used to tell his assistants that there was no single procedure that had got physicians in bad with families to such an extent as did circumcisions.

We will close by quoting our staff consultant. "The younger doctor sees the patient just as he does in private practice and has to make his diagnosis as efficiently and as accurately as he can. This experience is fully as valuable as any experience he can get in the ward in treating very sick people. It would be of great benefit to the public and to the young doctors if our out-patient services could be organized with the same efficiency and along the same lines that our ward services function."

ANOTHER ANNUAL MEETING

ON THE FIRST DAY of September, 1812, the Rhode Island Medical Society held its first annual meeting in the Senate Chamber of the Court House in Providence.

On that memorable occasion officers were elected for the year ensuing, Dr. Edward L. Waring read a Discourse, a committee was named to provide a dinner on the next anniversary "for such of the fellows as may choose to dine together", and the By-Laws were amended to provide that

> "There shall be an annual meeting of the Rhode Island Medical Society, to be holden alternately in the towns of Newport and Providence. When in Newport, it shall be holden on the last Wednesday in August; and when in Providence, it shall be holden on the Tuesday next preceding the Commencement of Brown University."

Thus was the pattern set by the Founders of our historic society of physicians. And through the years the pattern has been changed in few respects. No longer is the meeting date influenced by the Brown commencement exercises; no longer is Newport the capitol city of the State.

But the theme of the meeting continues through the years. An assembly in the late Spring. An anniversary chairman, an annual dinner, and foremost, an outstanding scientific presentation that has grown from the original single discourse of Dr. Waring to a series of lectures by leaders in medicine within and beyond the borders of Rhode Island. And an added attraction is the annual display of technical exhibits by leading pharmaceutical and allied organizations.

Each annual session takes its place in an unending procession of historic events in the chronology of the Society. Now and then one meeting stands forth more prominently because of the wide reputation of the speakers and the scientific research projected by their addresses. The 1949 meeting promises to be such a meeting.

The Chapin Orator has been designated as Dr. Tom Spies of Birmingham, Alabama. The name of Spies is world wide as the result of his research in the realm of nutrition in its application to the health of peoples. In singling him out for the award by the Society and the City of Providence, the committee on arrangements has indeed found a physician imbued with the zeal of the researcher in public health who would talk on familiar terms with our Chapin.

With doctors facing the issue of compulsory service under a federal health system, the committee brings to Rhode Island Dr. Ernest B. Howard, assistant secretary of the American Medical Association, and Dr. Robert E. S. Young, Columbus surgeon, president of the Association of Physicians and Surgeons. Both men are eminently qualified to discuss the issues ahead of medicine.

But it is scientific medicine that attracts us to our medical sessions in the constant search for new

facts to aid us in the preservation of health and the defeat of disease for all people. The roster of speakers including Dr. Fallon of Worcester, Dr. Alvarez of the Mayo Clinic, Dr. Proger of the Pratt Diagnostic Clinic, Dr. Harken of Massachusetts General, Dr. Stout of Columbia University, and our own members, Drs. O'Connell, Louis Burns, and Eric Denhoff with original presentations, provide the setting for two days of intensive post graduate medical education that no member will wish to miss.

COMMUNITY LEADERSHIP

We have on previous occasions commented of the failure of political groups, colleges, and civic organizations to draw from the medical profession leaders exceptionally well-equipped to render great contributions to the common weal.

No doubt physicians today hesitate to enter the arena of politics because of present day tactics allowing for indulgence in personalities rather than issues, for criticisms of anyone who does not espouse without personal reservation the cause of the individual political group, whether or not that cause is just and in the best interests of the majority of the people. Was it not Ovid who first said that to be thoroughly imbued with the liberal arts refines the manners, and makes men to be mild and gentle in conduct? Perhaps the education and the training of the physician has taken such a course too often.

Therefore, it is with pride and a certain personal pleasure that we note the recent election of Dr. Samuel D. Clark as President of the Town Council in Bristol, and that we recall the election to the Presidency of the 20-member Council of the City of Newport last fall of Dr. Samuel Adelson. And as another member of the Newport council Dr. Henry Brownell takes his place with these medical-community leaders.

Dr. Adelson has long been one of the most active members of the Rhode Island Medical Society. He has served, and continues to, as Councillor from the Newport County Society, and he has been a member of our important Health Insurance Committee. Dr. Brownell, former secretary of his county society, and Dr. Clark, presently secretary of the newly-formed Bristol County Medical Association, demonstrated their talents as executives and committee members of value to their medical societies long before their communities claimed them for greater service.

WANTED

The Library seeks a copy of the AMERICAN JOURNAL OF OBSTETRICS AND GYNECOLOGY, December, 1947, issue.

EAST PROVIDENCE CONVALESCENT NURSING HOME

The East Providence Convalescent Nursing Home, operated under the auspices of the Rhode Island Cancer Society, calls to the attention of the physicians of this State its administrative policies, as follows:

Only positive cancer diagnosis patients are admitted, both male and female. Physician's certification of presence of the disease required.

Ambulatory, post-operative and terminal cases are accepted.

Regularly appointed staff of physicians in attendance.

A registered nurse is in charge of the home, and practical nurses are on 24-hour duty.

Each case is considered on its own merits, both for admission and financial responsibility.

Information on weekly rate which includes medication, food, and nursing service, may be secured from the R. I. Cancer Society, 728 Hospital Trust Building, Providence.

SYRUP OF URETHANE

The Federal Security Administration's Food and Drug Administration is making seizure of Syrup of Urethane. This is a cough syrup manufactured by Marvin R. Thompson, Inc., Stamford, Conn. Physicians, pharmacists, and consumers are warned that the administration of Urethane in the quantity recommended on the label may cause a dangerous lowering of the white blood cell count. This leaves the patient more liable to infection from disease germs. Individuals suffering from coughs are likely to have accompanying infections.

While urethane came into use as a sedative about a century ago, recent medical studies clearly demonstrate its potential danger when used as directed in the labeling of this syrup. However, when use of urethane is discontinued the white blood cell count ordinarily returns to normal in a short time.

More than 2300 gallons of Syrup of Urethane have been distributed in about 34,000 packages ranging in size from ½ oz. physician's samples to one gallon bottles. The product has gone throughout the country to physicians, wholesale druggists, and retail pharmacists.

When seizure actions were commenced the manufacturers started to recall Syrup of Urethane from the market. The manner and extent of distribution are such that neither the manufacturer nor federal, state, and local health offices will be able to locate all bottles promptly.

PROGRAM . . . 138th ANNUAL MEETING

RHODE ISLAND MEDICAL SOCIETY

May 11-12, 1949 *At the Rhode Island Medical Society Library, Providence*

WEDNESDAY, MAY 11

2:00 P.M. CALL TO ORDER

WELCOME BY PRESIDENT, JOSEPH C. O'CONNELL, M.D.
RECOGNITION OF DELEGATES FROM OTHER SOCIETIES

2:15 P.M. "ENDOMETRIOSIS — THE GENERAL PRACTITIONER AND THE GENERAL SURGEON"

JOHN FALLON, M.D., of Worcester, Massachusetts

(Surgeon, Fallon Clinic and St. Vincent Hospital, Worcester, A.B., Sc.D., F. A. C. S., American Board of Surgery, Ex-President, New England Obstetrical and Gynecological Society, Vice President, Mayo Clinic Alumni Association; Member, New England Surgical Society, New England Cancer Society, International Society of Surgery)

2:45 P.M. "PUZZLING FUNCTIONAL SYNDROMES"

WALTER C. ALVAREZ, M.D., of Rochester, Minnesota

(Senior Consultant, Division of Medicine at Mayo Clinic, Professor of Medicine, University of Minnesota (Mayo Foundation)

3:15 P.M. "THE A M A AND THE STATE MEDICAL SOCIETIES"

ERNEST B. HOWARD, M.D., of Chicago, Illinois

(Assistant Secretary, AMA, Formerly Chief of Health Mission to Peru)

3:45 P.M. INTERMISSION TO VISIT TECHNICAL EXHIBITS

4:15 P.M. THE CHARLES V. CHAPIN ORATION

"RECENT ADVANCES IN NUTRITION"

TOM SPIES, M.D., of Birmingham, Alabama

(Professor of Nutrition and Metabolism and Chairman of the Department, Northwestern University Medical School; Director, Nutrition Clinic, Hillman Hospital, Birmingham, Alabama)

continued on page 212

5:15 P.M. TOUR OF THE TECHNICAL EXHIBITS

6:00-7:00 P.M. RECEPTION . . . . . At the Narragansett Hotel
(For Members of the Society and their Guests)

7:00 P.M. DINNER . . . . . At the Narragansett Hotel
(For Members of the Society and their Guests)

9:00 P.M. *Presiding:* EDWARD A. MCLAUGHLIN, M.D., of Providence
Anniversary Chairman

Presentation of the Charles V. Chapin Memorial Award:

HONORABLE DENNIS J. ROBERTS
Mayor of the City of Providence

Greetings: Honorable JOHN O. PASTORE, *Governor of Rhode Island*

Address: "NATIONAL HEALTH PLANS — BRITISH AND AMERICAN"

ROBERT E. S. YOUNG, M.D., of Columbus, Ohio
President, American Association of Physicians and Surgeons

THURSDAY, MAY 12

At the Rhode Island Medical Society Library

Presiding: EDGAR S. POTTER, M.D., *Vice President*

11:00 A.M. "HYPOGLYCEMIA — PREVENTION IN THE NEW DIABETIC WITH RESULTANT STABILIZATION ON LOW INSULIN DOSAGE"

LOUIS E. BURNS, M.D.

Physician-in-Chief, Newport Hospital, Past President, Newport County Medical Society.

11:00 A.M. "THE SURGERY OF THE AORTA AND CARDIAC VALVES"

DWIGHT E. HARKEN, M.D., of Boston, Massachusetts

(Assistant Clinical Professor of Surgery at Harvard Medical School; Assistant Professor of Surgery at Tufts College Medical School; Senior Associate in Thoracic Surgery at the Peter Bent Brigham Hospital; Visiting Surgeon in Thoracic Surgery at the Boston City Hospital; Consultant in Thoracic Surgery at the Veterans Administration Rutland Heights and the U. S. Navy at the Chelsea Naval Hospital.)

12:00 BUSINESS MEETING OF THE SOCIETY
INSTALLATION OF OFFICERS FOR 1949-50

12:30 P.M. LUNCHEON (A buffet lunch will be served to members of the Society in the basement dining room)

Presiding: PETER PINEO CHASE, M.D., *President-Elect*

2:00 P.M. "LYMPHOSARCOMA AND HODGKINS DISEASE"

ARTHUR P. STOUT, M.D., of New York, New York

(Professor of Surgery, College of Physicians & Surgeons—Columbia University, Attending Surgical Pathologist Presbyterian Hospital, New York)

continued on page 214

EVER X-RAY A WHISKEY?

OF COURSE, whiskies can't be X-rayed, but they *can* be analyzed. Analysis reveals why today so many physicians recommend light blended whiskies to their patients when whiskey is indicated.

For neutral spirit blends contain few congeners, such as fusel oil, tannins, aldehydes, esters, furfurals, acids, etc. That means neutral spirit blends are not only light but mild, too. What's more, they are usually low in alcoholic content.

One of America's leading whiskies of this type is Carstairs White Seal. Extremely low in congeneric content, it is blended with care by master distillers unmatched for skill and experience. And, though high quality, it is surprisingly *low in price.*

Whenever whiskey is indicated, may we suggest that you recommend that superb blend—Carstairs White Seal whiskey—to *your* patients?

The Medical Man who Cares says:

CARSTAIRS White Seal

BLENDED WHISKEY

WRITE FOR FREE PAMPHLET! It contains much interesting information on the difference between whiskies of various types. For your *free* copy, address: Carstairs Bros. Distilling Co., Inc., 405 Lexington Ave., N. Y. C.

Carstairs Bros. Distilling Co., Inc., Baltimore, Md., 86.8 Proof, 72% Grain Neutral Spirits

2:30 P.M. "SOME DIETARY FACTORS IN CARDIOVASCULAR DISEASE"

SAMUEL PROGER, M.D., of Boston, Massachusetts

(Professor of Medicine, Tufts College Medical School, Chief of Staff, Pratt Diagnostic Hospital)

3:00 P.M. INTERMISSION TO VISIT TECHNICAL EXHIBITS

3:30 P.M. PRESIDENTIAL ADDRESS:

"THE COSTS OF MEDICAL CARE"

JOSEPH C. O'CONNELL, M.D.

President, Rhode Island Medical Society; Chairman, Board of Examiners in Medicine for Rhode Island; Secretary, Board of Hospital Commissioners of the City of Providence; Former Surgeon-in-chief, Rhode Island Hospital.

4:00 P.M. "DIAGNOSTIC TECHNIQUES OF CHILDREN WITH CEREBRAL PALSY" (illustrated)

ERIC DENHOFF, M.D., of Providence, Rhode Island

(Medical Director of Meeting Street School, and Director, Laboratory, Emma Pendleton Bradley Home)

ALLIED MEETING

WOMAN'S AUXILIARY TO THE R. I. MEDICAL SOCIETY

Wednesday, May 11 ..... ***Auditorium, Plantations Club, Providence***

12:15 P.M. LUNCHEON

1:30 P.M. ADDRESS:

"CAN POLITICAL MEDICINE REPLACE PRIVATE PRACTICE?"

JOSEPH S. LAWRENCE, M.D.

(Director, Washington Office, American Medical Association)

2:15 P.M. BUSINESS MEETING

DISTRICT MEDICAL SOCIETY MEETINGS

WASHINGTON COUNTY MEDICAL SOCIETY

The 65th Annual Meeting of the Washington County Medical Society was held on January 12th at the Nurses' Home of the Westerly Hospital.

Dr. Charles L. Farrell spoke to the members on Public Relations. He explained the A. M. A. assessment, and asked for our support of it. He also spoke of the cash sickness benefit and the new blanks which will be issued for it.

The meeting was then called to order by the President, and the minutes of the last meeting read and accepted.

There was some discussion about the charge for insurance examinations and all members were urged to charge $10.00. The secretary was asked to notify all members.

SAMUEL NATHANS, M.D.
President, 1949
Washington County Medical Society

Dr. Frederick C. Eckel of Westerly, and Dr. Martin J. O'Brien of Wickford were approved by the Board of Censors, and were voted into membership of this society.

The Treasurer's Report for the year was read, accepted, and ordered placed on file.

Dr. Visgilio, Dr. Manning and Dr. Ruisi were appointed a nominating committee. They brought in the following slate of officers which was elected unanimously:

President: Dr. Samuel Nathans
1st Vice President: Dr. Thomas A. Nestor
2nd Vice President: Dr. Albert Henry
Secretary & Treasurer: Dr. Julianna R. Tatum
Auditor: Dr. Frederick C. Eckel
Censor for three years:
Dr. Hartford P. Gongaware

Delegrate for two years: Dr. Louis Morrone

The President then introduced the speaker for the day, Dr. Egmont G. Orbach of New Britain, Connecticut. Dr. Orbach read a scholarly paper illustrated by lantern slides, on "A Newer Treatment of Varicose Veins". A lively question period followed, and lunch was finally served about two o'clock to 15 members and guests.

Respectfully submitted,
JULIANNA R. TATUM, *Secretary*

PAWTUCKET MEDICAL ASSOCIATION

The regular monthly meeting of the Pawtucket Medical Association was called to order by the President Dr. Earl Mara, on February 17, 1949, at 6:30 p.m. in the Nurses Dining Room of Memorial Hospital. This was a dinner-meeting.

A communication from the Rhode Island Medical Society regarding payment of the A.M.A. assessment was read and it was unanimously moved that the Pawtucket Medical Association avail itself of the gracious offer of the State Medical Society to do all the billing and collecting of this assessment.

The report of the Nominating Committee was read with the following slate for the coming year:

President: Dr. John Gordon
Vice President: Dr. James Healey
Treasurer: Dr. Laurence Senseman
Secretary: Dr. Kiernan Hennessey
Councilor: Dr. Charles Farrell

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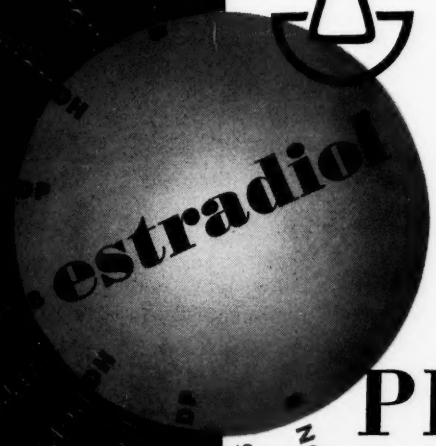
therapeutic reliability in estrogen therapy



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PAWTUCKET MEDICAL ASSOCIATION

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Alternate Councilor: Dr. Edward Trainor
Delegates: Dr. Earl Mara
Dr. Lincoln Turner
Dr. Robert Henry
Dr. Henry Hanley

There were no counter nominations offered.

The scientific session was held in the Nurses Auditorium where the chairman of the evening, Dr. Thad Krolicki, introduced Dr. H. Leonard Bolen, Chief of the Department of Gastroenterology and Proctology, Fall River General and St. Anne's Hospitals. Dr. Bolen gave a convincing lecture on, "The Blood Pattern—Its Value in Malignancy," illustrating his remarks with a slide demonstration of the various patterns.

The meeting adjourned at 9:45 p.m. Fifty-seven members and guests attended the meeting.

Respectfully submitted,

KIERNAN W. HENNESSEY, M.D., *Secretary*

PROVIDENCE MEDICAL ASSOCIATION

A regular meeting of the Providence Medical Association was held at the Medical Library on Monday, March 7, 1949. The meeting was called to order by the president, Dr. George W. Waterman, at 8:45 P.M.

With the consent of the membership the secretary omitted the reading of the minutes of the previous meeting.

The secretary reported for the Executive Committee as follows:

It was voted to continue the Prize Case Report Contest during 1949, and that awards of $50, for first prize, and $25 for second prize, be authorized.

The financial report of the Medical Milk Commission for the year 1948, as audited by Over, Ormiston & Company, was viewed and accepted for file.

Authorization was given to the Telephone Committee to draw upon the Association's funds as necessary for the work of circularizing the membership relative to a central telephone exchange under the Association's auspices.

The Committee on Group Health & Accident Insurance was requested to make a report to the Executive Committee by April.

The president announced that the committee consisting of Dr. Waldo O. Hoey and Dr. Russell R. Hunt has prepared the Association's tribute to the late Doctor John D. Hubbard which has been placed in the records. A copy will be transmitted to the family of Dr. Hubbard.

The secretary reported that the Executive Committee recommends for election to membership the following:

Gene A. Croce, M.D.
Frank P. Duffy, M.D.
Ferdinand S. Forgeil, M.D.
James J. Sheridan, M.D.

A motion was unanimously adopted electing these physicians active members of the Association.

Dr. Waterman introduced Dr. Lucius C. Kingman, a member of the Executive Committee of the Providence Chapter of the American Red Cross, who spoke on "RED CROSS ACTIVITIES."

Dr. Kingman emphasized the fact that close contact with Red Cross activities is necessary to know what is going on. The American Red Cross under its charter has two mandates, first, to take care of military men and their dependents, and second, to care for disasters.

As the Red Cross issues charters, they pass down these mandates. There are now 3-4 thousand of these chapters.

Whether in war or peace, the home service department takes care of servicemen. This year it has a budget of $60,000. During the month of December, the home service department had 1200 open cases in Providence and 900 in the state chapters. Full time trained social workers are needed in this department, which works seven days a week, twenty-four hours a day. The local chapters

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PROVIDENCE MEDICAL ASSOCIATION

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have the power to determine what is needed done in its own community. The disaster setup is a masterpiece—the various departments are well organized to work well together. In addition to taking care of disaster when it occurs, they have to prepare for it, so that if one occurs, all will know what to do. Dr. Kingman then gave an impressive summary of the work done in this state by the Red Cross.

The second speaker was Mr. Carl V. Slader, Director of Safety Services of the Providence Chapter of the American Red Cross, who spoke on the "FIRST AID PROGRAM."

Mr. Slader informed us that Red Cross now has a new first aid textbook recommending universally approved methods. They stress the limitation to first aid and temporary care until a physician arrives to take over.

At present over 5,000 high schools and 400 colleges in the North Atlantic area have courses in first aid. Industry, too, has endorsed first aid—it saves manpower, compensation and insurance. Many firms in Providence have had courses in first aid given by the Red Cross. They have also taught police and fire departments in the state. The Red Cross is playing the role of instructor.

"FIRST AID BY POLICE" was explained by Superintendent E. Ralph Bonat of the Rhode Island State Police. Superintendent Bonat states that many lives have been saved and injuries made less severe because policemen knew first aid. All policemen should know a great deal of first aid—this will bring confidence and brighten the morale of the people of the nation. With the exception of the medical profession, no one handles more injuries than the police. In addition to helping the public, first aid gives policemen knowledge to help themselves and their fellow officers.

Mr. Charles E. Quinn described the work of the rescue squad of the Fire Department. A demonstration was given by a team under the direction of Lt. Charles Potter. Mr. Quinn briefly reviewed the history of the origin of the rescue squads. The idea originated with the chief of the Los Angeles fire department 20 years ago.

In Rhode Island we have some five rescue units that are always available. The committee on disaster is trying to get the cooperation of citizens in Providence to call this rescue squad. Mr. Quinn emphasized that doctors, policemen, and firemen working together in perfect coordination will accomplish the mission of the committee on disaster. He emphatically stated that the rescue squad is not in competition with the doctor, but is his assistant.

He recommends a committee of doctors to supervise the disaster squads and keep their standards up. This, he feels, will lead to good public relations.

Lt. Charles Potter of the Providence Fire Department then spoke about the situations in which the rescue squad took part—from emergency child birth, drownings, to people stuck in wells. Over $9500 of the most modern equipment is available. There are experienced men in every town available immediately. A police officer, ambulance, and rescue squad is sent out on every accident. All are at the disposal of the physician. The rescue squad was then sent for and appears very quickly. They gave an excellent demonstration of the use of the respirator.

"THE NATIONAL BLOOD PROGRAM OF THE AMERICAN RED CROSS" was the subject of a talk by Mr. Charles McEachran, Program Director of the North Atlantic Area of the American Red Cross.

Mr. McEachran spoke on the National Blood Program. The Red Cross started blood donor recruiting as far back as 1936.

Under sponsorship of the Army and Navy, the program expanded tremendously. Thirteen and one half million pints of blood were made available during the war. After the war it lapsed.

In 1945, if a hospital felt there was a need for a blood donor recruitment service, a chapter might be authorized to do it. One fundamental policy is

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PROVIDENCE MEDICAL ASSOCIATION

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adhered to, viz., that the product of the donation must be made available to the patient free of charge —the hospital and physician may charge for his services only. It is estimated that a national bank would need 7 million pints a year. In Rhode Island 20,000 pints a year would be needed. Certain basic things must be considered. First is the desire of the medical profession. Unless the medical society endorses it, it will not be done. Secondly, are the local Rhode Island Chapters able financially and through organization able to do it. The Red Cross has four functions in this service. First—collect enough blood to meet the needs of the local hospitals. Second—provide technical help. Third —train volunteer help. Fourth—announce the program jointly with the medical profession. In addition Red Cross will process blood for distribution, distribute the blood, and engage in research.

Dr. Freeman of Fall River then gave us the highlights on how the Massachusetts Blood Bank worked.

He reiterated that hospitals must still maintain their own blood banks.

Attendance was 52.

Collation was served.

The meeting adjourned at 11 P.M.

Respectfully submitted,

DANIEL V. TROPPOLI, M.D.

NEWPORT COUNTY MEDICAL SOCIETY

The Newport County Medical Society held a meeting at the Newport Hospital on March 22, 1949. Fourteen members attended.

New business: Dr. Frank Logler moved that the Secretary of this Society draw up a suitable resolution following the program of the AMA as outlined by Whitaker and Baxter in their "Blueprint of the Campaign Against Compulsory Health Insurance". This was seconded and unanimously approved.

Dr. Louis Burns explained the new proposed plan of "Impartial examiners for the Rhode Island Cash Sickness Compensation Program".

Dr. Norbert Zielinski, Treasurer, reported that the treasury balance was about $400.00.

Dr. George Eckert moved that Dr. Norbert Zielinski replace Dr. James Callahan as delegate to the Rhode Island Medical Society. Dr. Callahan had asked to be replaced since because of the pressure of his professional work. Dr. Lewis Abramson seconded. Motion was approved.

Our guest speaker, Thad A. Krolicki, M.D., spoke on "Diagnosis and Treatment of Common Anorectal Diseases". His excellently prepared lantern slide commentary was extremely informative and was well received.

Collation followed.

Respectfully submitted,

JOHN M. MALONE, M.D., *Secretary*

WOMAN'S AUXILIARY
to the
RHODE ISLAND MEDICAL SOCIETY

A MEETING of the Woman's Auxiliary to the Rhode Island Medical Society was held on Tuesday, March 8, 1949, at the Medical Library. The meeting was called to order by the President, Mrs. J. Murray Beardsley, at 2 o'clock.

The Secretary's report of the previous meeting was approved as read.

Mrs. Jesse P. Eddy 3rd, Treasurer, reported a balance on hand February 28, 1949 of $1416.15 and 290 members. This report was accepted as read and placed on file.

The President called on Mrs. Herbert E. Harris, Chairman of the Rummage Sale held November 16, 1948, to make her report. Mrs. Harris stated the net proceeds of the sale were $321.50 and thanked the members for their cooperation and contributions in making this sale a success.

The President then asked for reports of the following Standing Committee Chairmen:

Mrs. Stanley D. Davies, Chairman of the Organization Committee, reported a gain of 52 members since May 1948.

Mrs. Frederick A. Webster, Chairman of the Legislative Committee, reported there are five important health bills in Congress now having the approval of the American Medical Association and one—Wagner-Murray-Dingell Bill—of which they disapprove. She urged the members to write their Congressmen and Senators as individuals.

Mrs. Peter Pineo Chase, Chairman of the Editorial Committee, reported for this Committee.

Mrs. Charles F. Gormly, Chairman of the Revisions Committee, reported there were no revisions made in the Constitution or By-Laws this year.

Mrs. Joseph C. Johnston, Chairman of the Program Committee, stated the annual convention would be held May 11, at the Plantations Club with luncheon at 12:30. There will be a short business meeting. Reports of the Chairmen of Committees will be mimeographed and passed out to those present to save time and it is the intention of the Committee that the meeting last not longer than 2½ hours. Mrs. Johnston thanked the members who helped in making the coffee hour so pleasant.

The President stated several requests for volunteer service from our members have been received from various health agencies. Upon the advice of Mr. John E. Farrell, and after talking it over with our Board, Mrs. Beardsley said, it was agreed that we would be only too happy for our members to volunteer service on committees or boards of health organizations whenever they can, but that they will not be appointed by the Auxiliary. In that way, Mrs. Beardsley said, we hope we shall have representation eventually on all health organizations in the State.

The President said the Convention of the Woman's Auxiliary to the American Medical Association would be held June 6-10 at Atlantic City and asked how many members plan to attend. There are six members who plan to attend.

A motion to adjourn, made by Mrs. Peter Pineo Chase and seconded by Mrs. H. Lorenzo Emidy, was carried.

Following the business meeting the President introduced Dr. Charles L. Farrell of Pawtucket, Chairman, Committee on Public Policy and Information of the Rhode Island Medical Society, and Delegate from Rhode Island to the American Medical Association.

Dr. Farrell spoke on the subject, "Health Insurance—Compulsory vs. Voluntary". He traced the beginning of the health insurance movement in this country from President Truman's address on No-

continued on page 226

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CALORIES	676	VITAMIN A	3000 I.U.
PROTEIN	32 Gm.	VITAMIN B_1	1.16 mg.
FAT	32 Gm.	RIBOFLAVIN	2.0 mg.
CARBOHYDRATE	65 Gm.	NIACIN	6.8 mg.
CALCIUM	1.12 Gm.	VITAMIN C	30.0 mg.
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I.U.
IRON	12 mg.	COPPER	0.5 mg.

**Based on average reported values for milk.*

WOMAN'S AUXILIARY

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vember 15, 1945 and the subsequent introduction of the Wagner-Murray-Dingell bills through the meetings of the National Health Assembly to the present time.

Dr. Farrell outlined Mr. Ewing's plan for government controlled compulsory health insurance and pointed out the inherent flaws therein. He also discussed in detail the advantages of voluntary insurance and answered some of the usual objections offered in such a type of plan. He discussed in detail the reasons why government compulsory health insurance would lower the quality of medical care, destroy initiative among physicians and, in general, destroy the private practice of medicine that has, at the present time, brought this country to the forefront of the world in the reduction of infant mortality, communicable diseases and the control of chronic illnesses of cancer and tuberculosis.

Dr. Farrell compared the philosophy of the voluntary movement as against the socialistic thinking of those who would favor compulsion.

In addition to being speaker, Dr. Farrell brought greetings to the Auxiliary from the Rhode Island Medical Society, in the absence of the President, Dr. Joseph C. O'Connell, who regretted not being able to attend.

Mrs. Herbert E. Harris, former President, and Mrs. Charles L. Farrell, Vice-President, poured during the coffee hour which preceded the meeting.

Respectfully submitted,

MARGARET E. HANLEY, *Secretary*

CENTRAL OFFICE DESIGNATIONS

Effective April 23, 1949 at midnight

AT tleboro 1	NO rth Attleboro 8
BA yview 1	NO rth Swansea 1
BR istol 1	*PA wtucket 2
CE ntredale 1	*PA wtucket 3
CH estnut 1	*PA wtucket 5
CO ventry 1	*PA wtucket 6
CU mberland 6	PL antations 1
DE xter 1	SC ituate 1
EA st Providence 1	SO uthgate 1
EL mhurst 1	ST uart 1
GA spee 1	TE mple 1
GR eenwich 1	UN ion 1
HI llsgrove 1	VA lley 1
HO pkins 1	WA rren 1
JA ckson 1	WI lliams 1

*Replacing BL ackstone and PE rry.

NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY

To Our Customers Who Have Business Telephone Service:

New central office designations with a name and a figure, about which we wrote you last September, will go into use at midnight, Saturday, April 23, 1949.

All the new designations are listed at the left below. Names in them are the same as now, except that PAwtucket in association with four separate figures replaces BLackstone and PErry.

Present figures (and ring letters, when used) in telephone numbers will remain the same, unless requiring change for other reasons. Therefore, to determine the new form of your own number, place present figures (and ring letter, if one) after the new central office designation. A hyphen should separate the designation and the rest of the number, as in DExter 1-9984 for example.

When telephone numbers are displayed in printed material or on motor vehicles, we recommend that the name of the central office designation be used in full, not just the first two capitalized letters. It is very important that no number in its new form be advertised until after April 23, 1949.

The new numbering plan will be adopted solely to effect operating improvements and will, therefore, have no bearing on telephone rates. It will facilitate the introduction of long distance dialing by operators later this year, and will also permit new central offices to be added as required by growth with the least possibility of having to introduce new names.

The Telephone Business Office serving your area will be glad to furnish any further information you may desire.

District Manager

PROVIDENCE MEDICAL ASSOCIATION

Next Meeting: Monday, May 2

MEDICAL LIBRARY NOTES

The Librarian of the Rhode Island Medical Society announces the recent addition of the following books:

Fuller Albright & Edward C. Reifenstein, Jr.—*The Parathyroid Glands and Metabolic Bone Disease.* Williams & Wilkins Co., Balt., 1948.

Allergy to Cottonseed and other Oilseeds and their Edible Derivatives. Gift of the National Cottonseed Products Association, Inc., Memphis, 1948.

A.M.A. Interns' Manual. W. B. Saunders Co., Phil., 1948.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1947. Gift of the American Medical Association. Chic., 1948.

Paul B. Beeson & others, editors—*The 1948 Year Book of General Medicine.* Year Book Publishers, Chic., 1948.

William Dock, I. Snapper & others, editors—*Advances in Internal Medicine, vol. 2.* Interscience Publishers, Inc., N. Y., 1947.

Rene J. DuBos, editor—*Bacterial and Mycotic Infections of Man.* Gift of the National Foundation for Infantile Paralysis, Inc. J. B. Lippincott Co., Phil., 1948.

Flanders Dunbar & others—*Synopsis of Psychosomatic Diagnosis and Treatment.* C. V. Mosby Co., St. L., 1948.

Evarts A. Graham, editor—*The 1948 Year Book of General Surgery.* Year Book Publishers, Chic., 1949.

Gordon Holmes—*Introduction of Clinical Neurology.* Williams & Wilkins Co., Balt., 1947.

Elizabeth Hunt—*Diseases Affecting the Vulva.* 3rd ed. rev. C. V. Mosby Co., St. L., 1948.

Index to the Literature of Experimental Cancer Research 1900-1935. Gift of the Donner Foundation, Inc. Phil., 1948.

Samuel A. Levinson, editor—*Symposium on Medicolegal Problems.* J. B. Lippincott Co., Phil., 1948.

Sidney Licht, editor—*Occupational Therapy Source Book.* Williams & Wilkins Co., Balt., 1948.

Mayo Clinic Diet Manual by the Committee on Dietetics of the Mayo Clinic. W. B. Saunders Co., Phil., 1949.

William W. Morrison—*Diseases of the Ear, Nose and Throat.* Appleton-Century-Crofts, Inc., N. Y., 1948.

Arthur P. Noyes—*Modern Clinical Psychiatry.* 3rd ed. W. B. Saunders Co., Phil., 1948.

New and Nonofficial Remedies, 1948. Gift of the American Medical Association, Chic., 1948.

Thomas M. Rivers, editor—*Viral and Rickettsial Infections of Man.* Gift of the National Foundation for Infantile Paralysis, Inc. J. B. Lippincott Co., Phil., 1948.

Gladys D. Shultz & Lee F. Hill— *Your Baby. The Complete Book for Mothers and Fathers.* Doubleday & Co., Inc., Garden City, 1948.

Torald Sollmann—*A Manual of Pharmacology and its Applications to Therapeutics and Toxicology.* 7th ed. W. B. Saunders Co., Phil., 1948.

Lawrence W. Smith & Edwin S. Gault—*Essentials of Pathology.* 3rd ed. Blakiston Co., Phil., 1948.

Nathan Smith—*A Practical Essay on Typhous Fever.* N. Y., 1824. Gift of the Rhode Island Historical Society.

Transactions of the Association of American Physicians. Vol. LXI, 1948. Gift of the Association of American Physicians.

John Warkentin & Jack D. Lange—*Physician's Handbook.* 5th ed. University Medical Publishers, Palo Alto, 1948.

Abner I. Weisman—*The Engaged Couple has a Right to Know.* Renbayle House, N. Y., 1948.

DAVENPORT COLLECTION

William R. Lawrence, editor—*Extracts from the Diary and Correspondence of the Late Amos Lawrence with a Brief Account of Some Incidents in his Life.* Bost., 1856.

Gifts of books and journals were received from Mr. Harold E. Fales, Dr. Irving A. Beck, the Division of Cancer Control of the R. I. State Department of Health and the Providence City Health Department.

LIBRARY EVENING HOURS

7-10 p. m.

Tuesday - Wednesday - Thursday

BOOK REVIEWS

CAMPBELL'S OPERATIVE ORTHOPEDICS. Edited by J. S. Speed, M.D. and Hugh Smith, M.D. 2 volumes. The C. V. Mosby Co., St. Louis, 1949. Second Edition $30.00.

When Willis C. Campbell published this work ten years ago, it was considered that he had compressed into a volume of 1150 pages the standard procedures of this specialty and designed for the surgeon of some experience. The present 2 volume edition of 1650 pages, dedicated to Dr. Campbell as a memorial, by his devoted associates, Drs. J. S. Speed and Hugh Smith, is written primarily for the fellowship man and resident. For this reason the work covers in minute detail the care of Orthopedic and Fracture cases from the preoperative preparation to the postoperative treatment. Surgical techniques are carefully described and abundantly illustrated. The procedures of several surgeons to accomplish the same desired result are listed under each subject. Sections on Mold Arthroplasty (hip), Peripheral nerve injuries, Ruptured intervertebral discs, Cerebral Palsy and Amputations have been written by collaborators with exceptional experience in these particular fields. The text is clear and concise; the illustrations are of superlative excellence. It is easily an outstanding textbook in its field.

ROLAND HAMMOND, M.D.

ESSENTIALS OF GYNECOLOGIC ENDOCRINOLOGY. Gardner M. Riley Ph.D. Caduceus Press. Ann Arbor. 1948. $3.00.

Each of the endocrine glands concerned in Gynecologic Endocrinology is discusssed with reference to the physiology and chemistry of its products. There is discussion of the results of over and under production of the hormones elaborated by each gland. Interrelationships are brought out and there is brief correlation with clinical states and pathology.

The book is highly condensed . Its brevity is its weakness. Since only the bare essentials of knowledge are given without needed elaboration, reading is difficult and the text itself has a limited value. To compensate for this, there is an excellent bibliography set down at the end of each section. The text provides a key to the use of the articles listed in the bibliography and in this way the work becomes a useful one for those interested in the subject of Gynecological Endocrinology.

CHARLES F. BEGG, M.D.

OBSTETRIC ANALGESIA AND ANESTHESIA. (Their Effects Upon Labor and the Child). Franklin F. Snyder, M.D., W. B. Saunders Company, Phil., 1949. $6.50.

Dr. Snyder's book is presented in two sections; the first discusses respiratory injuries of the fetus or newborn, and the second considers the treatment of pain during labor.

In section I a laboratory technique for the observation of full term fetuses within the uterus is described. It is stated that animals prepared in this manner allow one to observe the phenomenon of intrauterine fetal respirations and to study the influence of anesthetic agents upon the fetal respiratory pattern. The author then presents convincing evidence that intrauterine fetal respirations occur normally in the human. The relationship of this physiological process to intrauterine pneumonia, atelectasis, and asphyxia are discussed in subsequent chapters.

The second half of the book is devoted to a consideration of the numerous drugs and anesthetic agents which have been employed for the relief of obstetrical pain during the past 50 years. Pertinent information from many outstanding articles on this broad subject is discussed. Here again, Dr. Snyder has turned to personally conducted animal experiments to help clarify some of the controversial issues. The newer and highly discussed

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BOOK REVIEWS

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anesthesia techniques of continuous caudal and continuous spinal anesthesia receive modest billing in one chapter entitled "Local Anesthesia." It is his belief that the present trend in obstetrical anesthesia merely represents another chapter in our search for the ideal obstetrical anesthetic; and, that the current enthusiasm for these techniques will soon wane because of the extreme demands they make upon the time of highly trained personnel.

The author deserves commendation not only for the unbiased and scientific manner in which the material is presented, but also for the original laboratory research work that forms the basis for much of this study. Those of us who are called upon to serve the expectant mother or the newborn infant should become familiar with the contents of "Obstetric Analgesia and Anesthesia."

H. W. UMSTEAD, M.D.

CLINICAL ASPECTS AND TREATMENT OF SURGICAL INFECTIONS. Frank L. Meleney. W. B. Saunders Co., Phil., 1949. $12.00.

This volume deals with all aspects of surgical infections with emphasis largely on diagnosis and treatment. Its scope is wide, dealing with everything from furuncles to brain abscess, and the discussion of nearly every condition is sharpened by short illustrative case histories. It is perhaps a fault of this type of book that it tries to accomplish too much. Sections such as that on the lower genito-urinary tract are notably sketchy.

Generally speaking it can be said that the author believes in early drainage or excision of a localized infection plus the use of antibiotics and chemotherapy. This policy is somewhat tempered in certain conditions such as empyema or suppurative pericarditis where he feels that aspiration plus local instillation of an antibiotic may be given a trial. Throughout the volume emphasis is placed on the choice of the proper agent for the organism being treated. Pus should be cultured and sensitivity tests to various drugs made wherever possible. Most frequently advised are the stand-bys, penicillin, streptomycin, and the sulfa drugs. There is, however, considerable discussion of the use of bacitracin for gram positive organisms not sensitive to penicillin, parachlorophenol locally in gram negative bacillus infections, and zinc peroxide paste in anaerobic infections. The use of bacteriophage is frequently mentioned. Certainly one of the most valuable contributions this volume makes is its description of the handling of these agents.

Some idea of the large amount of ground covered by the author may be given by listing his feelings with regard to certain controversial points. He

favors local injection of antibiotics in skin infections. Surgical removal of tuberculous lymph nodes is advocated in most cases. In acute pancreatitis operation for decompression of the biliary tree and/or drainage of pancreatic abscess is advised if the patient does not improve fairly promptly on a conservative regime. For regional enteritis ileocolostomy with exclusion as described by Colp, Garlock, and Ginsberg is recommended. Non-operative treatment of acute osteomyelitis is stressed. Treatment of hand infections is slightly more conservative than advocated by many due to the author's reliance on antibiotics.

In appraising the book generally it may be said that it brings together a large amount of material on surgical infections. While most of what is said has been mentioned before, it is well to have it collected in a single volume and illustrated by case histories. Those parts of the book on the proper choice and use of chemo-therapeutic and antibiotic agents are particularly stimulating.

THOMAS PERRY, JR., M.D.

THOMAS-JONES-RIDLON. H. Winnett Orr, M.D., Charles C. Thomas, Springfield, Illinois, 1949.

This volume is a tribute of devotion to the principle of rest in the treatment of disease and especially injury. The author has long carried on a crusade for the more universal application of rest as the first element in treatment. Although the importance of rest has been appreciated from earliest times, it was emphasized by Sir John Hunter and especially by John Hilton the "Apostle of Rest." Hugh Owen Thomas carried this principle to its ultimate conclusion and believed that rest should be "enforced, uninterrupted and prolonged." The author served under Sir Robert Jones with the American Orthopedic Unit in World War I and learned to appreciate the importance of Thomas's teaching. If Jones had not continued to promulgate these principles they would have been lost to posterity. In this country, Dr. Ridlon fought valiantly for the acceptance of Thomas's ideas. Numerous quotations from Thomas's writings are included and are supplemented with interpretative comments by the author. A chapter on the contributions to Orthopedic Surgery of Dr. John Ridlon by his favorite pupil, Dr. Arthur Steindler concludes the volume. Many drawings from the Thomas publications illustrate the book which is a significant contribution to the history of this specialty.

ROLAND HAMMOND, M.D.

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YOUR BABY. The Complete Baby Book for Mothers and Fathers. Gladys Denny Shultz and Lee Forrest Hill, M.D. First Edition, 1948. Doubleday & Co., Inc.

Including Dad in on the program of infant and child care is one of the features of this new book. From the time pregnancy is first suspected, through birth, through infancy and on up to the pre-school age the authors have covered pertinent information for the benefit of *both* parents. For example, in the first section on prenatal care one learns something of what Rh positive and negative means, what childbirth anesthesia is, what calorie counting means, what the symptoms of impending toxemia are, and what preparations are necessary before the baby arrives. One surprising statement is that "having a baby is going to be a great change for the employed or active wife during pregnancy as it means much staying quietly at home and, in a way, vegetating". If one is expected to behave that way then there is a lot of misbehaving going on!

The various phases of infant and child development are well covered month by month for the first year, and then the vital second year and the pre-school years. This book is intended only as a supplement to regular medical care and is a good "extension course" for the new parents. Many of the paragraphs have marginal headings or titles for quick easy reference. The authors treat very adequately such subjects as thumb-sucking, toilet habits, sleeping and eating habits, play-time habits and personality development. They also have a good answer to the age old question "Where did I come from?" To further assist the young couple there is an excellent series of forty-four striking photographs and numerous line drawings, many of which show what to do step by step.

Finally, there is a section devoted to formulas and recipes, a section on ailments and accidents and a well planned record section for the treasured personal history of the baby's early years.

FREDERIC W. RIPLEY, JR., M.D.